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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,998	06/11/2004	Brent A. Anderson	BUR920040039US1	3997
30449	7590	11/02/2005	EXAMINER	
SCHMEISER, OLSEN + WATTS			NGUYEN, DAO H	
3 LEAR JET LANE			ART UNIT	
SUITE 201			PAPER NUMBER	
LATHAM, NY 12110			2818	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

28

Office Action Summary

Application No.	Applicant(s)	
10/709,998	ANDERSON ET AL.	
Examiner	Art Unit	
Dao H. Nguyen	2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 9-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>0604</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the communications dated 06/11/2004 through 10/04/2005.

Claims 1-20 are active in this application.

Acknowledges

2. Receipt is acknowledged of the following items from the Applicant.
Information Disclosure Statement (IDS) filed on 06/11/2004. The references cited on the PTOL 1449 form have been considered.

Applicant is requested to cite any relevant prior art if being aware on form PTO-1449 in accordance with the guidelines set for in M.P.E.P. 609.

Election/Restriction

3. Application's election with traverse to prosecute the invention of Group I, claims 1-8, drawn to semiconductor devices, in the Response to Election Requirement, filed 10/04/2005 is acknowledged.

The traversal is on the ground(s) that see the election paper. This is not found persuasive because the fields of search for method claims, which is classified in class

Art Unit: 2818

438, and device claims, which is classified in class 257, are NOT coextensive and the determinations of patentability of method and device claims are different, that is process limitations and device limitations are given weight differently in determining the patentability of the claimed inventions. Also, the strategies for doing text searching of the device claims and method claims are different. Thus, separate searches are required.

The requirement is still deemed proper and is therefore made **FINAL**.

Claims 9-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a non-elected group there being no allowable generic or linking claim.

Applicant has the right to file a divisional application covering the subject matter of the non-elected claims.

4. Applicant is reminded that a complete reply to this Office Action should include cancellation of nonelected claims or other appropriate action (37 CFR 1.144). See MPEP § 821.01. Also, upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently filed petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(h).

Specification

5. The specification has been checked to the extent necessary to determine the presence of possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim(s) 1 is/are rejected under 35 U. S. C. § 102 (e) as being anticipated by U.S. Patent No. 6,924,560 to Wang et al.

Regarding claim 1, Wang discloses a semiconductor structure, as shown in figs. 2-5, comprising :

- (a) a semiconductor substrate (fig. 4); and
- (b) N substructures on the substrate, N being a positive integer, each of the N

substructures comprising :

(i) first and second FinFET active regions 202, 206/204 (fig. 2), wherein the first FinFET active region 202 includes at least first and second devices Qt1 & Qd1, and

(ii) a back gate region 226 abutting and being sandwiched between the first and second FinFET active regions 202 & 206, wherein the back gate region 226 is shared by the first and second devices Qt1, Qd1.

8. Claim(s) 1-8 is/are rejected under 35 U. S. C. § 102 (e) as being anticipated by U.S. Patent Application Publication No. 2005/0224878 by Chang.

Regarding claim 1, Chang discloses a semiconductor structure, as shown in figs. 1, 13-14, comprising :

(a) a semiconductor substrate 30 (fig. 1); and

(b) N substructures on the substrate, N being a positive integer, each of the N substructures comprising :

(i) first and second FinFET (fig. 13) active regions (first and second horizontal regions (top portion) in fig. 14 in which source and drain S/D are formed), wherein the first FinFET active region (first or top horizontal region in fig. 14 in which source and drain S/D are formed) includes at least a first device (comprising first pair of source/drain S/D) and second device (comprising second pair of source/drain S/D), and

(ii) a back gate region (backgate, fig. 14) abutting and being sandwiched between the first and second FinFET active regions, wherein the back gate region is shared by the first and second devices.

Regarding claim 2, Chang discloses the semiconductor structure wherein the second FinFET active region (second horizontal region in fig. 14 in which source S and drain D are formed) includes at least third device (comprising first pair of source/drain S/D) and fourth device (comprising second pair of source/drain S/D), and wherein the back gate region is shared by the third and fourth devices. See fig. 14.

Regarding claim 3, Chang discloses the semiconductor structure further comprising a first main gate region (M2 FrontGate WL) shared by the first and third devices. See fig. 14.

Regarding claim 4, Chang discloses the semiconductor structure further comprising a second main gate region (M2 FrontGateWL) shared by the second and fourth devices. See fig. 14.

Regarding claim 5, Chang discloses the semiconductor structure wherein the first and second FinFET active regions comprise semiconductor devices of a same channel type. See figs. 4-14.

Regarding claim 6, Chang discloses the semiconductor structure wherein the N substructures comprise M SRAM memory cells, M being a positive integer. See fig. 13-14.

Regarding claim 7, Chang discloses the semiconductor structure wherein the N substructures comprise M logic circuits, M being a positive integer. See fig. 13-14.

Regarding claim 8, Chang discloses the semiconductor structure wherein N > 1. See figs. 13-14.

Conclusion

9. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the day of this letter. Failure to respond within the period for response will cause the application to become abandoned (see M.P.E.P 710.02(b)).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dao H. Nguyen whose telephone number is (571)272-1791. The examiner can normally be reached on Monday-Friday, 9:00 AM – 6:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571)272-1787. The fax numbers for all communication(s) is 571-273-8300.

Art Unit: 2818

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1625.

A handwritten signature in black ink, appearing to read 'Dao H. Nguyen', with a long horizontal line extending from the end of the signature.

Dao H. Nguyen
Art Unit 2818
October 27, 2005

A handwritten signature in black ink, appearing to read 'David Nelms', with a stylized, looped initial 'D'.

David Nelms
Supervisory Patent Examiner
Technology Center 2800